

INPUT SUMMARY CHECKLIST REPORT

PROJECT													
Title:	Neylon Residence				Address type:	Street Address							
Building Type:	User		Bedrooms:	6	Lot #:	---							
Owner:	Francis & Margaret Neylon				Conditioned Area:	5280		Block/SubDivision:	---				
Builder Home ID:					Total Stories:	2		PlatBook:	---				
Builder Name:					Worst Case:	No		Street:	356 SE Nature Drive				
Permit Office:	Columbia County		Rotate Angle:	0	County:	Columbia							
Jurisdiction:					Cross Ventilation:	Yes		City, State, Zip:	Lake City, FL,				
Family Type:	Detached		Whole House Fan:	No									
New/Existing:	New (From Plans)		Terrain:	Suburban									
Year Construct:	2024		Shielding:	Suburban									
Comment:													
CLIMATE													
<input checked="" type="checkbox"/>	Design Location	Tmy Site		Design Temp	97.5%	2.5%	Int Design Temp	Winter	Summer	Heating Degree Days	Design Moisture	Daily temp Range	
___	FL, Gainesville	FL_GAINESVILLE_REGIONA		32	92		70	75	1305.5	51	Medium		
BLOCKS													
<input checked="" type="checkbox"/>	Number	Name	Area	Volume									
___	1	Block1	5280	45487 cu ft									
SPACES													
<input checked="" type="checkbox"/>	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated			
___	1	1st Floor	3247	29223	Yes	6	1	Yes	Yes	Yes			
___	2	2nd Floor	2033	16264	No	10	5	Yes	Yes	Yes			
FLOORS (Total Exposed Area = 3247 sq.ft.)													
<input checked="" type="checkbox"/>	#	Floor Type	Space	Exposed Perim(ft)	Area	R-Value Perim.	U-Factor Joist	Slab Insul. Vert/Horiz	Tile	Wood	Carpet		
___	1	Crawlspace	1st Floor	305.67	3247 sqft	0	19	0.047	-----	0.00	0.00	1.00	
___	2	Floor Over Other Space	2nd Floor	---	2033 sqft	---	19	0.046	-----	0.00	0.00	1.00	
ROOF													
<input checked="" type="checkbox"/>	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
___	1	Hip	Composition shingles	4227 ft²	0 ft²	Medium	Y	0.96	No	0.9	No	0	39.81
ATTIC													
<input checked="" type="checkbox"/>	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC						
___	1	Partial cathedral ceiling	Vented	300	3247 ft²	Y	N						

INPUT SUMMARY CHECKLIST REPORT

CEILING (Total Exposed Area = 3572 sq.ft.)								
✓ #	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
___ 1	Flat ceiling under attic(Vented)	1st Floor	38.0	Double Batt	1335.4ft²	0.024	0.11	Wood
___ 2	Flat ceiling under attic(Vented)	2nd Floor	38.0	Double Batt	2236.3ft²	0.024	0.11	Wood

WALLS (Total Exposed Area = 4595 sq.ft.)															
✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
___ 1	N	Exterior	Frame - Wood	1st Floor	19.0	16.0	4	9.0	0	147.0	0.061		0.23	0.75	0 %
___ 2	N	Exterior	Frame - Wood	1st Floor	19.0	40.0	2	9.0	0	361.5	0.061		0.23	0.75	0 %
___ 3	W	Garage	Frame - Wood	1st Floor	19.0	33.0	11	9.0	0	305.3	0.061		0.23	0.75	0 %
___ 4	N	Garage	Frame - Wood	1st Floor	19.0	28.0	0	9.0	0	252.0	0.061		0.23	0.75	0 %
___ 5	W	Exterior	Frame - Wood	1st Floor	19.0	20.0	0	9.0	0	180.0	0.061		0.23	0.75	0 %
___ 6	S	Exterior	Frame - Wood	1st Floor	19.0	34.0	0	9.0	0	306.0	0.061		0.23	0.75	0 %
___ 7	E	Exterior	Frame - Wood	1st Floor	19.0	9.0	0	9.0	0	81.0	0.061		0.23	0.75	0 %
___ 8	S	Exterior	Frame - Wood	1st Floor	19.0	15.0	6	9.0	0	139.5	0.061		0.23	0.75	0 %
___ 9	E	Exterior	Frame - Wood	1st Floor	19.0	8.0	0	9.0	0	72.0	0.061		0.23	0.75	0 %
___ 10	S	Exterior	Frame - Wood	1st Floor	19.0	23.0	8	9.0	0	213.0	0.061		0.23	0.75	0 %
___ 11	W	Exterior	Frame - Wood	1st Floor	19.0	9.0	6	9.0	0	85.5	0.061		0.23	0.75	0 %
___ 12	S	Exterior	Frame - Wood	1st Floor	19.0	16.0	10	9.0	0	151.5	0.061		0.23	0.75	0 %
___ 13	E	Exterior	Frame - Wood	1st Floor	19.0	45.0	10	9.0	0	412.5	0.061		0.23	0.75	0 %
___ 14	N	Exterior	Frame - Wood	2nd Floor	19.0	64.0	2	8.0	0	513.3	0.061		0.23	0.75	0 %
___ 15	W	Exterior	Frame - Wood	2nd Floor	19.0	12.0	2	8.0	0	97.3	0.061		0.23	0.75	0 %
___ 16	N	Exterior	Frame - Wood	2nd Floor	19.0	9.0	6	8.0	0	76.0	0.061		0.23	0.75	0 %
___ 17	W	Exterior	Frame - Wood	2nd Floor	19.0	16.0	5	8.0	0	131.3	0.061		0.23	0.75	0 %
___ 18	S	Exterior	Frame - Wood	2nd Floor	19.0	9.0	6	8.0	0	76.0	0.061		0.23	0.75	0 %
___ 19	W	Exterior	Frame - Wood	2nd Floor	19.0	5.0	4	8.0	0	42.7	0.061		0.23	0.75	0 %
___ 20	S	Exterior	Frame - Wood	2nd Floor	19.0	24.0	0	8.0	0	192.0	0.061		0.23	0.75	0 %
___ 21	W	Exterior	Frame - Wood	2nd Floor	19.0	10.0	5	8.0	0	83.3	0.061		0.23	0.75	0 %
___ 22	S	Exterior	Frame - Wood	2nd Floor	19.0	16.0	0	8.0	0	128.0	0.061		0.23	0.75	0 %
___ 23	E	Exterior	Frame - Wood	2nd Floor	19.0	8.0	0	8.0	0	64.0	0.061		0.23	0.75	0 %
___ 24	S	Exterior	Frame - Wood	2nd Floor	19.0	24.0	2	8.0	0	193.3	0.061		0.23	0.75	0 %
___ 25	E	Exterior	Frame - Wood	2nd Floor	19.0	36.0	4	8.0	0	290.7	0.061		0.23	0.75	0 %

DOORS (Total Exposed Area = 44 sq.ft.)											
✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
___ 1	W	Garage	Insulated	1st Floor	None	0.46	3.00	0	8.00	0	24.0ft²
___ 2	E	Exterior	Insulated	1st Floor	None	0.46	2.00	6	8.00	0	20.0ft²

WINDOWS (Total Exposed Area = 834 sq.ft.)																	
✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Storm	Total Area (ft²)	Same Units	Width (ft)	Height (ft)	--Overhang-- Depth (ft)	Sep. (ft)	Interior Shade	Screen
___ 1	N	1	Vinyl	Low-E Double	Y	0.36	0.25	N	N	18.0	1	3.00	6.00	1.5	1.0	None	None
___ 2	N	2	Vinyl	Low-E Double	Y	0.36	0.25	N	N	108.0	6	3.00	6.00	9.5	1.0	None	None
___ 3	N	2	TIM	Low-E Double	Y	0.36	0.25	N	N	40.0	1	6.00	6.67	9.5	1.0	None	None
___ 4	S	6	Vinyl	Low-E Double	Y	0.36	0.25	N	N	108.0	6	3.00	6.00	1.5	1.0	None	None
___ 5	S	6	Vinyl	Low-E Double	Y	0.36	0.25	N	N	6.0	1	2.00	3.00	1.5	1.0	None	None
___ 6	S	8	Vinyl	Low-E Double	Y	0.36	0.25	N	N	54.0	3	3.00	6.00	1.5	9.0	None	None
___ 7	E	9	TIM	Low-E Double	Y	0.36	0.25	N	N	24.0	1	3.00	8.00	6.5	1.0	None	None
___ 8	S	10	Vinyl	Low-E Double	Y	0.36	0.25	N	N	60.0	4	2.50	6.00	9.5	1.0	None	None
___ 9	S	10	TIM	Low-E Double	Y	0.36	0.25	N	N	48.0	1	6.00	8.00	9.5	1.0	None	None
___ 10	W	11	Vinyl	Low-E Double	Y	0.36	0.25	N	N	48.0	1	6.00	8.00	6.5	1.0	None	None
___ 11	S	12	Vinyl	Low-E Double	Y	0.36	0.25	N	N	54.0	3	3.00	6.00	1.5	1.0	None	None

INPUT SUMMARY CHECKLIST REPORT

WINDOWS(Continued)

___ 12E	13	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	3.00	5.00	1.5	1.0	None	None
___ 13N	14	Vinyl	Low-E Double	Y	0.36	0.25	N	N	90.0	6	3.00	5.00	1.0	1.0	None	None
___ 14N	14	Vinyl	Low-E Double	Y	0.36	0.25	N	N	48.0	6	2.00	4.00	1.5	1.0	None	None
___ 15W	17	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	3.00	5.00	1.5	1.0	None	None
___ 16S	22	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	3.00	5.00	1.5	1.0	None	None
___ 17S	24	Vinyl	Low-E Double	Y	0.36	0.25	N	N	37.5	3	5.00	2.50	1.5	1.0	None	None

INFILTRATION

✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___ 1	Wholehouse	Proposed ACH(50)	0.00038	5307	291.15	546.60	0.1864	7.0	All	45487 cu ft

GARAGE

✓ #	Floor Area	Roof Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
___ 1	771 ft²	771 ft²	68 ft	9 ft	1

MASS

✓ #	Mass Type	Area	Thickness	Furniture Fraction	Space
___ 1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	1st Floor
___ 2	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	2nd Floor

HEATING SYSTEM

✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----Geothermal HeatPump----	Ducts	Block
						Entry Power Volt Current		
___ 1	Electric Heat Pump	None/Single		HSPF2: 8.80	58.9	0.00 0.00 0.00	sys#1	1

COOLING SYSTEM

✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___ 1	Central Unit	None/Single		SEER2:15.5	63.7	1920	0.75	sys#1	1

HOT WATER SYSTEM

✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___ 1	Electric	None	Garage	0.92 (0.92)	50.00 gal	40 gal	120 deg	Standard	None	12
	Recirculation System	Recirc Control Type	Loop length	Branch length	Pump power	DWHR	Facilities Connected	Equal Flow	DWHR Eff	Other Credits
___ 1	No		NA	NA	NA	No	NA	NA	NA	None

INPUT SUMMARY CHECKLIST REPORT

DUCTS														
✓ Duct #	-----Supply-----			-----Return-----			Leakage Type	Air Handler	CFM 25 TOT	CFM 25 OUT	QN OUT	RLF	HVAC #	
	Location	R-Value	Area	Location	R-Value	Area							Heat	Cool
___ 1	Attic	6.0	1320 ft²	Attic	6.0	264 ft²	Default Leakage	Garage	(Default)	(Default)			1	1

TEMPERATURES

Programable Thermostat: Y																
Ceiling Fans: N																
Cooling	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input type="checkbox"/> Dec				
Heating	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug	<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec				
Venting	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug	<input type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input type="checkbox"/> Dec				
Thermostat Schedule: HERS 2006 Reference																
✓ Schedule Type			1	2	3	4	5	6	Hours		7	8	9	10	11	12
___ Cooling (WD)	AM	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	PM	80	80	78	78	78	78	78	78	78	78	78	78	78	78	78
___ Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
___ Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68	68	66	66
___ Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68	68	66	66

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

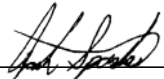
ESTIMATED ENERGY PERFORMANCE INDEX* = 92

The lower the EnergyPerformance Index, the more efficient the home.

356 SE Nature Drive,Lake City,FL,

1. New construction or existing	New (From Plans)	10. Wall Types(4594.8 sqft.)	Insulation Area
2. Single family or multiple family	Detached	a. Frame - Wood, Exterior	R=19.0 4037.50 ft ²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=19.0 557.25 ft ²
4. Number of Bedrooms	6	c. N/A	
5. Is this a worst case?	No	d. N/A	
6. Conditioned floor area above grade (ft ²)	5280	11. Ceiling Types(3571.7 sqft.)	Insulation Area
Conditioned floor area below grade (ft ²)	0	a. Flat ceiling under att (Vented)	R=38.0 3571.70 ft ²
7. Windows**	Description	b. N/A	
a. U-Factor:	Dbl, U=0.36	c. N/A	
SHGC:	SHGC=0.25	12. Roof(Comp. Shingles, Vented) Deck	R=0.0 4227 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R ft ²
SHGC:		a. Sup: Attic, Ret: Attic, AH: Garage	6 1320
c. U-Factor:	N/A	b.	
SHGC:		c.	
Area Weighted Average Overhang Depth:	4.335 ft	14. Cooling Systems	kBtu/hr Efficiency
Area Weighted Average SHGC:	0.250	a. Central Unit	63.7 SEER2:15.50
8. Skylights	Description	15. Heating Systems	kBtu/hr Efficiency
U-Factor:(AVG)	N/A	a. Electric Heat Pump	58.9 HSPF2:8.80
SHGC(AVG):	N/A	16. Hot Water Systems	
9. Floor Types	Insulation	a. Electric	Cap: 50 gallons
a. Crawlspace	R= 19.0	b. Conservation features	EF: 0.920
b. Floor Over Other Space	R= 19.0		
c. N/A	R=	17. Credits	None
			CV, Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature:  Date: 1/24/25

Address of New Home: 356 SE Nature Drive City/FL Zip: Lake City,FL,



*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Envelope Leakage Test Report (Blower Door Test)

Residential Prescriptive, Performance or ERI Method Compliance

2023 Florida Building Code, Energy Conservation, 8th Edition

Jurisdiction:	Permit #:
---------------	-----------

Job Information

Builder:	Community:	Lot:	NA
Address: 356 SE Nature Drive			
City: Lake City	State: FL	Zip:	

Air Leakage Test Results *Passing results must meet either the Performance, Prescriptive, or ERI Method*

PRESCRIPTIVE METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour at a pressure of 0.2 inch w.g. (50 Pascals) in Climate Zones 1 and 2.

PERFORMANCE or ERI METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding the selected ACH(50) value, as shown on Form R405-2023 (Performance) or R406-2023 (ERI), section labeled as infiltration, sub-section ACH50.
 ACH(50) specified on Form R405-2023-Energy Calc (Performance) or R406-2023 (ERI): 7.000

$\frac{\text{CFM}(50)}{\text{Building Volume}} \times 60 \div \frac{45487}{\text{ACH}(50)} =$ <div style="text-align: center; font-size: 2em; font-weight: bold; margin: 10px 0;"> <input type="checkbox"/> PASS </div> <p><input type="checkbox"/> When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department.</p>	<p><u>Method for calculating building volume:</u></p> <p><input type="radio"/> Retrieved from architectural plans</p> <p><input checked="" type="radio"/> Code software calculated</p> <p><input type="radio"/> Field measured and calculated</p>
--	---

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Dwelling units with an air leakage rate less than three air changes per hour shall be provided with whole-house mechanical ventilation in accordance with Section R403.6.1 of this code and Section M1507.3 if the *Florida Building Code, Residential*. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), *Florida Statutes*, or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the ~~trade~~ *code official*. Testing shall be performed at any time after creation of all penetrations of the ~~building~~ *building thermal envelope*.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open.
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
6. Supply and return registers, if installed at the time of the test, shall be fully open.
7. If an attic is both sealed and insulated at the roof deck, interior access doors and hatches between the conditioned space volume and the attic shall be opened during the test and the volume of the attic shall be added to the conditioned space volume for purposes of reporting the infiltration volume and calculating the air leakage of the home.

Testing Company

Company Name: _____ Phone: _____

I hereby verify that the above Air Leakage results are in accordance with the 2023 8th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above.

Signature of Tester: _____ Date of Test: _____

Printed Name of Tester: _____

License/Certification #: _____ Issuing Authority: _____

Residential System Sizing Calculation

Summary

Francis & Margaret Neylon
356 SE Nature Drive
Lake City, FL

Project Title:
Neylon Residence

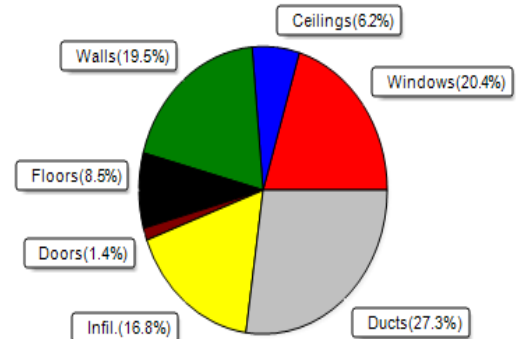
11/6/2024

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M)			
Humidity data: Interior RH (50%) Outdoor wet bulb (79F) Humidity difference(54gr.)			
Winter design temperature(MJ8 99%/Cu)	33 F	Summer design temperature(MJ8 99%/Cu)	99 F
Winter setpoint	70 F	Summer setpoint	75 F
Winter temperature difference	37 F	Summer temperature difference	24 F
Total heating load calculation	54512 Btuh	Total cooling load calculation	70464 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	108.1 58934	Sensible (SHR = 0.75)	83.8 47770
Heat Pump + Auxiliary(0.0kW)	108.1 58934	Latent	118.5 15923
		Total (Electric Heat Pump)	90.4 63694

WINTER CALCULATIONS

Winter Heating Load (for 5280 sqft)

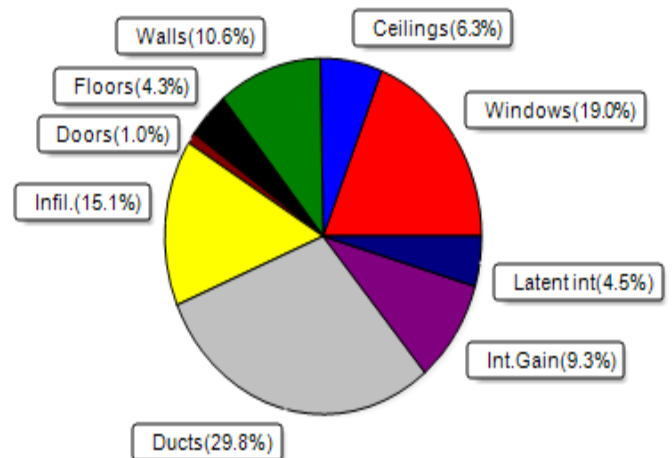
Load component	Load
Window total 834 sqft	11102 Btuh
Wall total 3717 sqft	10628 Btuh
Door total 44 sqft	749 Btuh
Ceiling total 3572 sqft	3354 Btuh
Floor total See detail report	4624 Btuh
Infiltration 226 cfm	9160 Btuh
Duct loss	14894 Btuh
Subtotal	54512 Btuh
Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
TOTAL HEAT LOSS	54512 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 5280 sqft)

Load component	Load
Window total 834 sqft	13377 Btuh
Wall total 3717 sqft	7484 Btuh
Door total 44 sqft	708 Btuh
Ceiling total 3572 sqft	4442 Btuh
Floor total	3017 Btuh
Infiltration 170 cfm	4456 Btuh
Internal gain	6580 Btuh
Duct gain	16963 Btuh
Sens. Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
Blower Load	0 Btuh
Total sensible gain	57028 Btuh
Latent gain(ducts)	4038 Btuh
Latent gain(infiltration)	6198 Btuh
Latent gain(ventilation)	0 Btuh
Latent gain(internal/occupants/other)	3200 Btuh
Total latent gain	13436 Btuh
TOTAL HEAT GAIN	70464 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____

11 / 06 / 2024

W. C. M.

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Francis & Margaret Neylon
356 SE Nature Drive
Lake City, FL

Project Title:
Neylon Residence
Building Type: User

11/6/2024

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 37.0 °F (MJ8 99%/Cu)
Winter Setpoint: 70 °F (Required Manual J default)

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
1	2, NFRC 0.25	Vinyl	0.36	N	18.0		13.3	240 Btuh
2	2, NFRC 0.25	Vinyl	0.36	N	108.0		13.3	1439 Btuh
3	2, NFRC 0.25	TIM	0.36	N	40.0		13.3	533 Btuh
4	2, NFRC 0.25	Vinyl	0.36	S	108.0		13.3	1439 Btuh
5	2, NFRC 0.25	Vinyl	0.36	S	6.0		13.3	80 Btuh
6	2, NFRC 0.25	Vinyl	0.36	S	54.0		13.3	719 Btuh
7	2, NFRC 0.25	TIM	0.36	E	24.0		13.3	320 Btuh
8	2, NFRC 0.25	Vinyl	0.36	S	60.0		13.3	799 Btuh
9	2, NFRC 0.25	TIM	0.36	S	48.0		13.3	639 Btuh
10	2, NFRC 0.25	Vinyl	0.36	W	48.0		13.3	639 Btuh
11	2, NFRC 0.25	Vinyl	0.36	S	54.0		13.3	719 Btuh
12	2, NFRC 0.25	Vinyl	0.36	E	30.0		13.3	400 Btuh
13	2, NFRC 0.25	Vinyl	0.36	N	90.0		13.3	1199 Btuh
14	2, NFRC 0.25	Vinyl	0.36	N	48.0		13.3	639 Btuh
15	2, NFRC 0.25	Vinyl	0.36	W	30.0		13.3	400 Btuh
16	2, NFRC 0.25	Vinyl	0.36	S	30.0		13.3	400 Btuh
17	2, NFRC 0.25	Vinyl	0.36	S	37.5		13.3	500 Btuh
	Window Total				833.5(sqft)			11102 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.077)	19.0/0.0	129		2.86	369 Btuh
2	Frame - Wood	- Ext	(0.077)	19.0/0.0	214		2.86	610 Btuh
3	Frame - Wood	- Adj	(0.077)	19.0/0.0	281		2.86	804 Btuh
4	Frame - Wood	- Adj	(0.077)	19.0/0.0	252		2.86	720 Btuh
5	Frame - Wood	- Ext	(0.077)	19.0/0.0	180		2.86	515 Btuh
6	Frame - Wood	- Ext	(0.077)	19.0/0.0	192		2.86	549 Btuh
7	Frame - Wood	- Ext	(0.077)	19.0/0.0	61		2.86	174 Btuh
8	Frame - Wood	- Ext	(0.077)	19.0/0.0	86		2.86	244 Btuh
9	Frame - Wood	- Ext	(0.077)	19.0/0.0	48		2.86	137 Btuh
10	Frame - Wood	- Ext	(0.077)	19.0/0.0	105		2.86	300 Btuh
11	Frame - Wood	- Ext	(0.077)	19.0/0.0	38		2.86	107 Btuh
12	Frame - Wood	- Ext	(0.077)	19.0/0.0	98		2.86	279 Btuh
13	Frame - Wood	- Ext	(0.077)	19.0/0.0	383		2.86	1094 Btuh
14	Frame - Wood	- Ext	(0.077)	19.0/0.0	375		2.86	1073 Btuh
15	Frame - Wood	- Ext	(0.077)	19.0/0.0	97		2.86	278 Btuh
16	Frame - Wood	- Ext	(0.077)	19.0/0.0	76		2.86	217 Btuh
17	Frame - Wood	- Ext	(0.077)	19.0/0.0	101		2.86	290 Btuh
18	Frame - Wood	- Ext	(0.077)	19.0/0.0	76		2.86	217 Btuh
19	Frame - Wood	- Ext	(0.077)	19.0/0.0	43		2.86	122 Btuh
20	Frame - Wood	- Ext	(0.077)	19.0/0.0	192		2.86	549 Btuh
21	Frame - Wood	- Ext	(0.077)	19.0/0.0	83		2.86	238 Btuh
22	Frame - Wood	- Ext	(0.077)	19.0/0.0	98		2.86	280 Btuh
23	Frame - Wood	- Ext	(0.077)	19.0/0.0	64		2.86	183 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Francis & Margaret Neylon
356 SE Nature Drive
Lake City, FL

Project Title:
Neylon Residence
Building Type: User

11/6/2024

Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
24	Frame - Wood	- Ext	(0.077)	19.0/0.0	156	2.86	446 Btuh
25	Frame - Wood	- Ext	(0.077)	19.0/0.0	291	2.86	831 Btuh
	Wall Total					3717(sqft)	10628 Btuh
Doors	Type		Storm Ueff.		Area X	HTM=	Load
1	Insulated - Garage,	n	(0.460)		24	17.0	408 Btuh
2	Insulated - Exterior,	n	(0.460)		20	17.0	340 Btuh
	Door Total					44(sqft)	749Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area X	HTM=	Load
1	Flat ceil/D/Shing		(0.025)	38.0/0.0	1335	0.94	1254 Btuh
2	Flat ceil/D/Shing		(0.025)	38.0/0.0	2236	0.94	2100 Btuh
	Ceiling Total					3572(sqft)	3354Btuh
Floors	Type		Ueff.	R-Value	Size X	HTM=	Load
1	Stem/Crawlsp(Carpet)(v)		(0.049)	19.0/0.0	3247.0 sqft	1.4	4624 Btuh
2	Interior		(0.049)	19.0	2033.0 sqft	0.0	0 Btuh
	Floor Total					5280 sqft	4624 Btuh
Envelope Subtotal:							30457 Btuh
Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=	Load
	Natural		0.30	45487	1.00	226.1	9160 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att)					(DLM of 0.376)	14894 Btuh
All Zones	Sensible Subtotal All Zones						54512 Btuh

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	54512 Btuh
	Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Total Heat Loss	54512 Btuh

EQUIPMENT

1. Electric Heat Pump	#	58934 Btuh
-----------------------	---	------------

Manual J Winter Calculations

Residential Load - Component Details (continued)

Francis & Margaret Neylon
356 SE Nature Drive
Lake City, FL

Project Title:
Neylon Residence
Building Type: User

11/6/2024

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)

U - (Window U-Factor)

HTM - (ManualJ Heat Transfer Multiplier)



Version 8

Manual J Summer Calculations

Residential Load - Component Details (continued)

Francis & Margaret Neylon
356 SE Nature Drive
Lake City, FL

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Neylon Residence

11/6/2024

Doors	Type			Area (sqft)	HTM	Load
1	Insulated - Garage			24.0	16.1	386 Btuh
2	Insulated - Exterior			20.0	16.1	322 Btuh
	Door Total			44 (sqft)		708 Btuh
Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle/RB	0.025	38.0/0.0	1335.4	1.24	1661 Btuh
2	Vented Attic/DarkShingle/RB	0.025	38.0/0.0	2236.3	1.24	2781 Btuh
	Ceiling Total			3572 (sqft)		4442 Btuh
Floors	Type		R-Value	Size	HTM	Load
1	Stem/Crawlsp(Carpet)(v)		19.0	3247 (sqft)	0.9	3017 Btuh
2	Interior		19.0	2033 (sqft)	0.0	0 Btuh
	Floor Total			5280.0 (sqft)		3017 Btuh
				Envelope Subtotal:		29028 Btuh
Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=	Load
	Natural	0.22	45487	1	169.6	4456 Btuh
Internal gain		Occupants	Btuh/occupant	Appliance		Load
		16	X 230	+	2900	6580 Btuh
				Sensible Envelope Load:		40065 Btuh
Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic) (DGM of 0.423)					16963 Btuh
				Sensible Load All Zones		57028 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Francis & Margaret Neylon
356 SE Nature Drive
Lake City, FL

Project Title: Neylon Residence

Climate: FL_GAINESVILLE_REGIONAL_A

11/6/2024

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	40065 Btuh
	Sensible Duct Load	16963 Btuh
	Total Sensible Zone Loads	57028 Btuh
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Blower	0 Btuh
	Total sensible gain	57028 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	6198 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	4038 Btuh
	Latent occupant gain (16.0 people @ 200 Btuh per person)	3200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	13436 Btuh
	TOTAL GAIN	70464 Btuh

EQUIPMENT

1. Central Unit	#	63694 Btuh
-----------------	---	------------

*Key: Window types (Panels - Number and type of panes of glass)
 (SHGC - Shading coefficient of glass as SHGC numerical value)
 (U - Window U-Factor)
 (InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))
 - For Blinds: Assume medium color, half closed
 For Draperies: Assume medium weave, half closed
 For Roller shades: Assume translucent, half closed
 (IS - Insect screen: none(N), Full(F) or Half(½))
 (Ornt - compass orientation)



Version 8